

Amendments to the Specification:

Please replace paragraph [011] with the following paragraph:

[011] Figures 1A, and 1B [is a] are diagrams illustrating an osmolarity measuring system with an example embodiment of the invention;

Please replace paragraph [013] with the following paragraph:

[013] Figures 3A, and 3B [is a] are diagrams illustrating an osmolarity measuring system of figures 1A-B in more detail;

Please replace paragraph [018] with the following paragraph:

[018] Figure 1A is a diagram illustrating an example embodiment of an osmolarity testing system 100 configured in accordance with one embodiment of the systems and methods described herein. System 100 comprises a base unit 102 and a cartridge 103. The cartridge 103 includes measurement chamber 104, which is configured to contain a volume of fluid and receive a contact lens 106 in the volume of fluid. In one example of the systems and methods described herein, the contact lens 106 or set of lenses acts as a receiving substrate and can be used to introduce a solute into the measurement chamber 104. In one example embodiment shown in Figure 1A, the base unit 102 includes a cover 108. In Figure 1A, the cover 108 is illustrated in the open position, which provides access to measurement chamber 104. The contact lens can be placed into chamber 104 as shown by the arrow in between contact lens 106 and chamber 104. Figure 1B further illustrates the example osmolarity testing system of Figure. 1A, showing a set of contact lens 106 within chamber 104.

Please replace paragraph [021] with the following paragraph:

[021] Figure. 3A further illustrates one embodiment of the cartridge 103 that includes measurement chamber 104 shown in an enlarged view. The measurement chamber can comprise

a plurality of electrodes 302 and 304 printed on the base region 306 of the measurement chamber 104. The measurement chamber 104 can further comprise a plurality of electrical contacts 310 and 312 for communicating with the base unit 102.

Please add the following paragraph between paragraphs [043] and [044]:

Figure 3B further illustrates the embodiment of the cartridge 103 and includes a set of contact lens in chamber 104. Cartridge 103 is shown in an enlarged view. As discussed above, chamber 104 is configured to contain a volume of fluid a contact lens 106 or a set of contact lenses.